

MEDIOCAMPUS, A NEW STINKBUG
GENUS FROM THE DOMINICAN REPUBLIC
(INSECTA: HETEROPTERA: PENTATOMIDAE)

DONALD B. THOMAS¹

Research Associate, Section of Invertebrate Zoology

ABSTRACT

A new genus, new species, in the stinkbug family Pentatomidae, *Mediocampus dominicanus* is described from the Dominican Republic. The genus is apparently related to the Antillean genera of the Pentatomini with a xiphoid metasternum, *Pharnus*, *Neopharnus*, and *Praepharnus*. It differs in that the metasternum is deeply sulcate for reception of the rostrum and the abdominal tubercle is bicarinate. These genera, especially the new genus, occupies a phylogenetic position somewhat intermediate between the Pentatomini and the Edessini.

INTRODUCTION

As a result of intensive collecting in the Dominican Republic by staff members of the Carnegie Museum, a new genus of stinkbug, herein described, was discovered. The new genus is represented by two female specimens from two localities separated by a distance of approximately 65 km. Both localities were low elevation (230 m), riparian woodland habitats. The specimens were collected at lights. The new genus appears to be related to a small group of genera known to occur primarily on the island of Cuba.

Mediocampus, new genus
(Fig. 1-3)

Type Species.—*Mediocampus dominicanus*, n. sp.

Diagnosis.—Metasternum bilaterally elevated, longitudinally, mesially sulcate for reception of rostrum; broadly notched posteriorly in apposition to basal abdominal production; projecting anteriorly as narrow elongate arm on each side of mesosternum. Mesosternum flat, narrow, with low bicarinate apical process projecting anteriorly between procoxae. Basal production of abdomen strongly sulcately excavated mesially, lateral margins of sulcus obtusely carinate; each carina projecting anteriorly into metasternal notch as subspinous production (Fig. 2). Bucculae prominently arcuate anteriorly, evanescently contiguous posteriorly. Apex of scutellum acuminate.

All femora unarmed. Tarsi three-segmented. Antennae five-segmented. Trichobothria on abdominal sternites II-VII in line with spiracles. Base of rostrum originating anterior to middle of head.

Etymology.—Latinized from Spanish *Mediocampo*, literally *medio* meaning "middle," and *ocampo* meaning "field," in reference to the intermediate position of the genus between the typical pentatomines and the plesiomorphic edessines.

¹ USDA-ARS Subtropical Agriculture Research Laboratory, Weslaco, Texas 78596.
Submitted 11 March 1994.

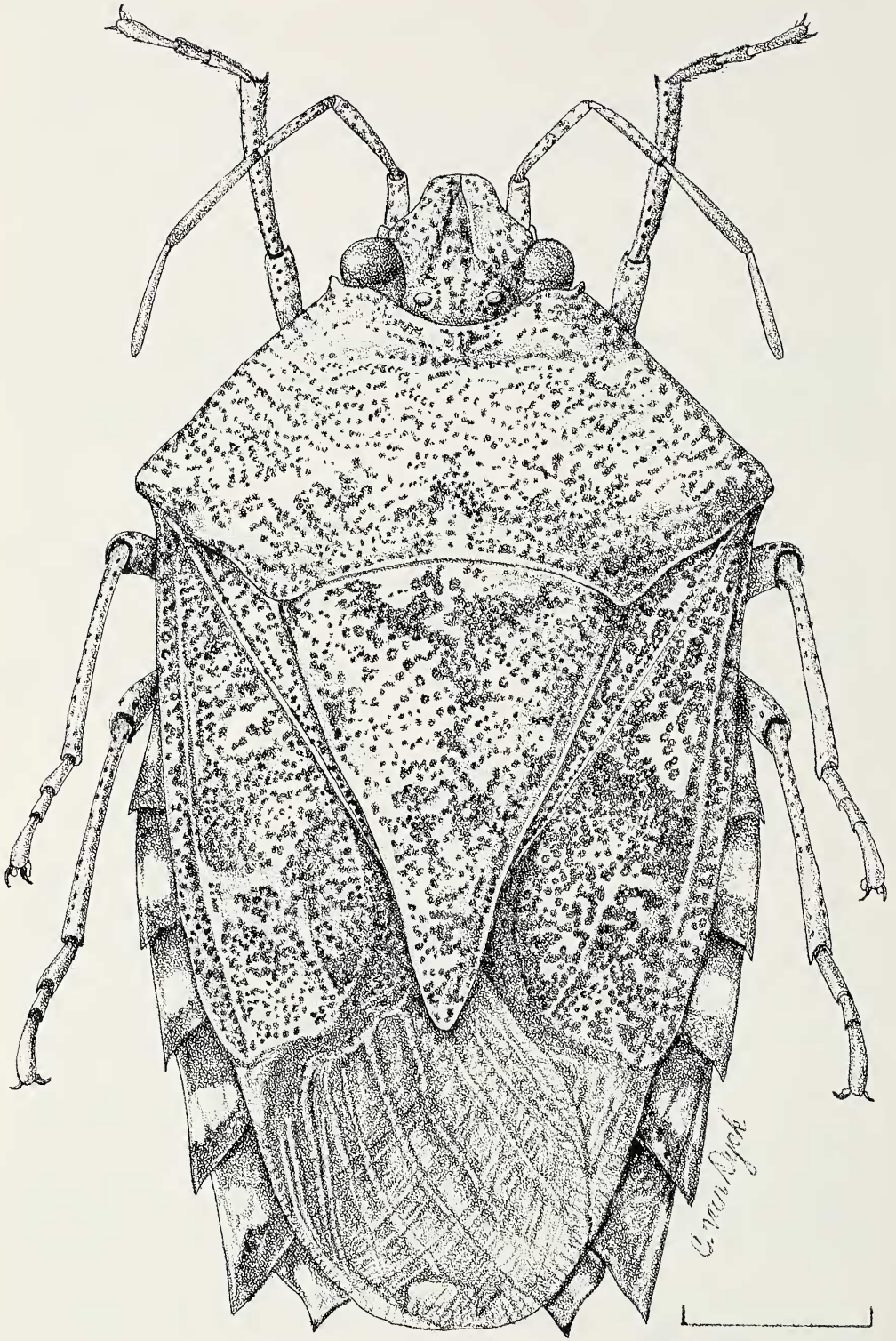


Fig. 1.—*Mediocampus dominicanus*, dorsal aspect. Bar = 2 mm.

Mediocampus dominicanus, new species

Description.—Elongate, ovate; length excluding membrane 11 mm, width across humeri 7 mm. Stramineous dorsally with fuscous yellow hemelytral coria and scutellum; dorsal and ventral surface with reddish-brown punctures irregularly distributed. Connexival segments with dark brown anterior and posterior infra-margins alternating with pale yellow meson.

Head. Length from apices of jugs to line of ocelli slightly greater than anteocular width. Jugs broadly contiguous anteriorly, lateral margins strongly sinuate. Antennal segment I shortest; II slightly longer than III; III about two-thirds length of IV; IV and V longest, subequal. Rostrum long, extending to third abdominal segment (second visible); segment II longest, slightly longer than III; segments I and IV subequal to one another and about two-thirds length of II.

Thorax. Anterolateral pronotal margin smooth, without marginal bead, sub-rectilinear in dorsal view. Humeri angular, not produced. Basal margin of pronotum arcuately concave; posterior angles not acutely produced. Scutellum proportionately long, apex extending to posterior limit of coria. Posterior margin of corium evenly arcuate; membrane infuscated. Metasternal scent gland evaporatorium maculate with spots equal in size and density to the dark punctures scattered over rest of venter. Ruga of scent gland orifice elongate, extending two-thirds distance to metapleural margin. Protibia subprismatic, meso- and metatibiae cylindrical with elongate sulcus.

Abdomen. Apices of connexiva acuminate. Lateral angles of sternite VII strongly spinosely produced. Margin separating segments III and IV effaced mesially. Spiracles large, oval.

Genitalia. First gonocoxites briefly contiguous at base, triangulum exposed medially; second gonocoxites narrow and emarginate posteriorly; eighth paratergites strongly angularly produced posteriorly; spiracles present; ninth paratergites narrowly acuminate (Fig. 3). Males unknown.

Type Specimens.—Holotype, female. Verbatim label data: "DOMINICAN REPUBLIC: Barahona. 9.2 Km NW Paraiso, confluence of Rio Nizao and Rio Coltico 18-03N 71-12W 230m 9-10 Aug 1990 J. Rawlins, S. Thompson." Deposited Carnegie Museum Natural History.

Paratype, female. (a) "DOMINICAN REPUBLIC: Pedernales. Along Rio Mulito, 13 Km N. Pedernales, 18-09N 71-46W." (b) "230m, 17 July 1992, J. Rawlins, S. Thompson, C. Young, R. Davidson. Riparian Woodland." Deposited Carnegie Museum Natural History.

DISCUSSION

The character states separating the neotropical subfamily Edessinae from the cosmopolitan Pentatominae are somewhat ambiguous. Four edessine genera, all restricted to the New World, are recognized: *Edessa* Fabricius, *Peromatus* Amyot & Serville, *Olbia* Stål, and *Pantochlora* Stål. Leston (1955) recognized the tribes Edessini and Pantochlorini within the subfamily Pentatominae. Rolston and McDonald (1979) did not acknowledge the tribal separation, but elevated the four genera to their own subfamily, Edessinae. All have a strongly-elevated metasternum which projects over the mesosternum; all have a short rostrum which extends only to the mesosternum in repose; all have the bucculae of the oral groove united behind the rostrum, and all have parandria or dorsal genital plates on the interior surface of the male pygophore. However, none of these character states is unique to the edessines, but occur singly or in combination in many pentatomines. The

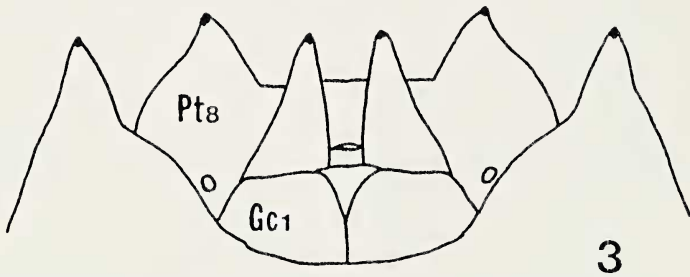
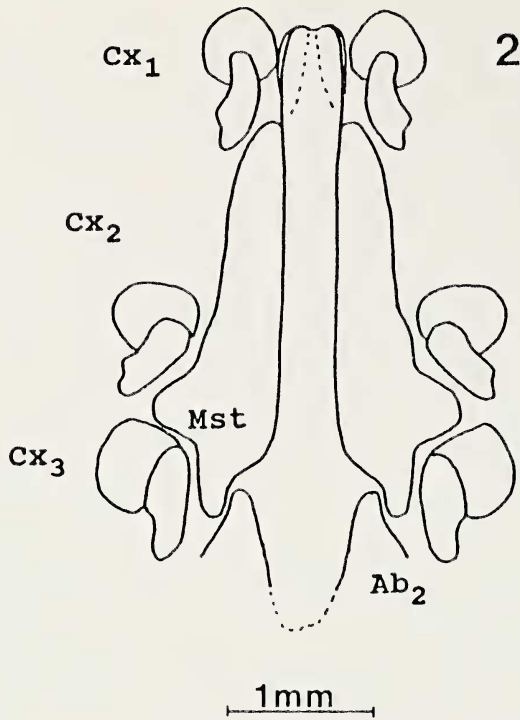


Fig. 2-3.—2. Metasternal and abdominal armature, ventral view. Cx = coxa, Mst = metasternum, Ab₂ = second abdominal segment. 3. Female terminalia. Pt8 = eighth paratergite, Gc1 = first gonocoxite.

genus *Piezosternum* Amyot & Serville has all of these characters but is placed in the Tessaratomidae, subfamily Oncomerinae, by Kumar (1968) because it has the additional character of the pronotum overlying the base of the scutellum. For this reason the Edessinae may be considered to be the stock derived most closely to the sister family Tessaratomidae.

Mediocampus is very "edessoid" in aspect and my first impression on seeing

these specimens was that they were a species of the large genus *Edessa*. On examining the ventral armature for the characteristic xiphoid metasternum found in all members of the latter genus, I found the xiphoid metasternum with typical long anterior arms present, but with the unusual character of a groove or sulcus mesially for the reception of the long rostrum. A similar, but even more exaggerated condition occurs in some South Pacific asopine genera, namely *Ealda* Walker and *Cantheconidea* Bergroth, but that is clearly a case of convergence and not relation. Another distinctive character is the bifid abdominal tubercle. A similarly bifid abdominal tubercle occurs in the African genera *Glypsus* Dallas and *Bathypoelia* Amyot & Serville, which otherwise bear little resemblance to the new Antillean genus.

Rolston et al. (1980) divide the Pentatomini into three sections based on the ventral armature. *Mediocampus* belongs to section 3, those having an abdominal tubercle in apposition to an elevated metasternum. In the key to this section *Mediocampus* falls out with a small group of Antillean genera which, like *Edessa*, have a xiphoid metasternum: *Pharnus* Stål, *Neopharnus* Van Duzee, and *Praepharnus* Barber and Bruner. In their description of the latter genus, Barber and Bruner (1932) considered *Praepharnus* "more closely related to *Pharnus* than to *Edessa*. . . ." *Mediocampus* appears to lie between *Praepharnus* and *Edessa*. It is similar to *Praepharnus* in size, elongate depressed form, straight anterolateral pronotal margins, and long slender rostrum. It shares with *Edessa* the long anterior arms of the metasternum and the posteriorly-united bucculae. It is unlike both genera in having the bicarinate abdominal tubercle and the sulcate metasternum. This sulcus is continuous with a sulcus on the abdominal midline, in contrast to the keeled abdominal midline in *Praepharnus*.

It is interesting to speculate that these three endemic Cuban genera, plus the new Hispaniolan genus, might be offshoots from a lineage close to the base of the edessines and pentatomines that differentiated and persisted in isolation in the Greater Antilles.

ACKNOWLEDGMENTS

I am grateful to John Rawlins for making these specimens available to me for study, and to L. H. Rolston and Pieter van Doesburg for advice on character states in the Edessinae. The habitus drawing of *Mediocampus dominicanus* was executed by Chris Van Dyke.

LITERATURE CITED

- BARBER, H. G., AND S. C. BRUNER. 1932. The Cydnidae and Pentatomidae of Cuba. Journal of the Department of Agriculture of Puerto Rico, 16:231–284.
- KUMAR, R. 1968. Morphology and relationships of the Pentatomoidea (Heteroptera) IV. Oncomerinae (Tessaratomidae). Australian Journal of Zoology, 17:553–606.
- LESTON, D. 1955. A key to the genera of Oncomerinae Stål (Hemiptera, Pentatomidae). Proceedings of the Royal Entomological Society of London (B), 24:62–68.
- ROLSTON, L. H., AND F. J. D. McDONALD. 1979. Keys and diagnoses for the families of Western Hemisphere Pentatomoidea, subfamilies of Pentatomidae and tribes of Pentatominae (Hemiptera). Journal of the New York Entomological Society, 87:189–207.
- ROLSTON, L. H., F. J. D. McDONALD, AND D. B. THOMAS. 1980. A conspectus of Pentatomini genera of the Western Hemisphere. Part I (Hemiptera: Pentatomidae). Journal of the New York Entomological Society, 88:120–132.